

The following listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 -6 (Canceled).

Claim 7 (Original): A uniform stress needle, comprising:

a proximal end section configured and adapted to secure a suture thereto;
a central section having a uniform transverse cross-sectional profile; and
a distal end section having a parabolic surface profile for producing a substantially uniform stress along a length thereof, the surface profile being defined by the following equation:

$$d = (((32W)/(\pi\sigma)) * (X_n))^{(1/3)}$$

where

d = measured diameter at location X_n ;
W = load normal to the needle;
X_n = distance from a distal-most end of the needle; and
σ = chosen stress restraint.

Claim 8 (Original): The uniform stress needle of claim 7, wherein the distal end section includes a distal tip having a uniform taper.

Claim 9 (Original): The uniform stress needle of claim 8, wherein the distal tip has a length which is substantially equal to a diameter of the central section of the needle.

Claim 10 (Canceled).

Claim 11 (New): A surgical needle, comprising:

a linear body portion including:
a proximal end section;
a central section; and
a distal end section, the distal end section having a substantially parabolic configuration for producing a substantially uniform stress profile along a length thereof;
wherein the distal end section has a diameter determined according to the following equation:

$$d = (((32W)/(\pi\sigma)) * (X_n))^{(1/3)}$$

where

d = measured diameter at location X_n ;
W = load normal to the needle;
X_n = distance from a distal-most end of the needle; and
σ = chosen stress restraint.

Claim 12 (New): The surgical needle of claim 11, wherein the distal end section includes a distal tip having a uniform taper.

Appl. No. 10/620,160
Amtd. dated October 27, 2005
Reply to Office Action Mailed August 1, 2005

Claim 13 (New): The surgical needle of claim 12, wherein the distal tip has a length which is substantially equal to a diameter of the central section of the surgical needle.

Claim 14 (New): The surgical needle of claim 11, wherein the proximal end section is configured and adapted to secure a suture thereto.

Claim 15 (New): The surgical needle of claim 11, wherein the central section has at least one of a rectilinear, circular, oval, triangular, I-beam and ribbon shaped cross-sectional profile.